

CLAIMS

What is claimed is:

1. A method of optimizing a software program for a target processor to meet performance objectives, where the software program is coded in a high-level language, the method comprising the steps of:
 - (a) optimizing the software program such that a resulting first optimized form of the software program is substantially independent of the target processor and is substantially coded in the high-level language;
 - (b) optimizing the first optimized form of the software program such that a resulting second optimized form of the software program is substantially dependent on the target processor and is substantially coded in the high-level language; and
 - (c) optimizing the second optimized form of the software program such that a resulting third optimized form of the software program is substantially dependent on the target processor and is includes portions coded in a low-level language of the target processor.
2. The method of claim 1, further comprising steps of:
 - (a1) determining a first performance profile for the first optimized form of the software program, and comparing the first performance profile with the performance objectives; and

(b1) determining a second performance profile for the second optimized form of the software program, and comparing the second performance profile with the performance objectives.

3. The method of claim 2, wherein steps (b), (b1), and (c) are not
5 performed if the performance objectives are met after completing step (a), and step
(c) is not performed if the performance objectives are met after completing step (b).